



DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                       |                                                 |  |
|--------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--|-----------------------|-------------------------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |                                                | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |                                                            | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |                                               |  |                       |                                                 |  |
| Date :                                                       |                                                | Step #:                                                                                                                                                                            |                                                            | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  | MRB (QSI042) Approval |                                                 |  |
| Description Work Order Deviation                             |                                                |                                                                                                                                                                                    |                                                            | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |  |                       | Completed By                                    |  |
|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                       | Lead hand / Supervisor<br>Approval Verification |  |
|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                       | QC / QA Coordinator<br>Approval                 |  |
|                                                              |                                                |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                       |                                                 |  |
| <b>Root Cause</b>                                            |                                                | <b>FAULT CATEGORY</b>                                                                                                                                                              |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                       |                                                 |  |
| Environment <input type="checkbox"/>                         | No Re-verification <input type="checkbox"/>    | Pressure/Forced <input type="checkbox"/>                                                                                                                                           | Temperature/Cure <input type="checkbox"/>                  | Power Loss/Surge <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Positioned Wrong <input type="checkbox"/>     |  |                       |                                                 |  |
| Design <input type="checkbox"/>                              | Operator <input type="checkbox"/>              | Bending <input type="checkbox"/>                                                                                                                                                   | Set-up <input type="checkbox"/>                            | Folio/Program <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Outside Dimensions <input type="checkbox"/>   |  |                       |                                                 |  |
| Doc/Data <input type="checkbox"/>                            | Offset/Setup <input type="checkbox"/>          | Centre Not Concentric <input type="checkbox"/>                                                                                                                                     | BOM/Route <input type="checkbox"/>                         | Grain <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Over/Under tolerance <input type="checkbox"/> |  |                       |                                                 |  |
| Equip/Tooling <input type="checkbox"/>                       | Supplier <input type="checkbox"/>              | Cracks <input type="checkbox"/>                                                                                                                                                    | Broken/Damage/Defect <input type="checkbox"/>              | Weld <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Part Incorrect <input type="checkbox"/>       |  |                       |                                                 |  |
| Handling/Pre <input type="checkbox"/>                        | Training <input type="checkbox"/>              | Crimp/Kink/Ripple/Wave <input type="checkbox"/>                                                                                                                                    | Inspection Incomplete/Unqualified <input type="checkbox"/> | Wrong Stock Pulled <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Part Lost/Missing <input type="checkbox"/>    |  |                       |                                                 |  |
| Material <input type="checkbox"/>                            | Use for Testing <input type="checkbox"/>       | Cuffs <input type="checkbox"/>                                                                                                                                                     | Contamination <input type="checkbox"/>                     | Out of Sequence <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Part Moved <input type="checkbox"/>           |  |                       |                                                 |  |
| Internal Transport <input type="checkbox"/>                  | Poor Information <input type="checkbox"/>      | Crushing <input type="checkbox"/>                                                                                                                                                  | Countersink <input type="checkbox"/>                       | Off-set <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Drawing <input type="checkbox"/>              |  |                       |                                                 |  |
| Tribal Knowledge <input type="checkbox"/>                    | Rushing <input type="checkbox"/>               | Heat Treat <input type="checkbox"/>                                                                                                                                                | Cut Too Short <input type="checkbox"/>                     | Mislabeled <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Finish <input type="checkbox"/>               |  |                       |                                                 |  |
| LOA <input type="checkbox"/>                                 | Product Improvement <input type="checkbox"/>   | Wave/Twist in Tube <input type="checkbox"/>                                                                                                                                        | Instructions Incomplete/Unclear <input type="checkbox"/>   | Fit/Function <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Misread <input type="checkbox"/>              |  |                       |                                                 |  |
| Substation <input type="checkbox"/>                          | Process Improvement <input type="checkbox"/>   | Marks/Chatter <input type="checkbox"/>                                                                                                                                             | Drill Holes <input type="checkbox"/>                       | Misaligned/off center <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Turning Sequence <input type="checkbox"/>     |  |                       |                                                 |  |
| Past Expiry Date <input type="checkbox"/>                    | Manufacturing Process <input type="checkbox"/> | OTHER :                                                                                                                                                                            |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                       |                                                 |  |
| Misidentified <input type="checkbox"/>                       | Past Due <input type="checkbox"/>              |                                                                                                                                                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |  |                       |                                                 |  |

## Work Order ID 138814

\*138814\*

Page 2

November 12, 2015 1:42:53 PM

Item ID: D212-725-1-110

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Engine Mount Deck Fitting

Start Date: 11/12/2015 Start Qty: 1.00 \*1\*

Cust Item ID:

Required Date: 12/23/2015 Req'd Qty: 1.00 \*1\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

130

QC8- Inspect parts - second check

0.00

\*130\*

H.A. 15/12/03

4

0

DAS  
08  
9-89

QC

Memo

0.00

Quality Control

140

Outsource process-Cadplate per QSI017 4.1.9.1

0.00

\*140\*

Outsource3

Memo

0.00

Outsource process - Cad plate

Issue P/O: 30643 Cad Plate per QQ-P-416F Class I Type  
IIConformity sheet required

DEC 03 2015

150

Receive &amp; Inspect for Damage &amp; Mat'l Certs

0.00

\*150\*

Packaging

Memo

0.00

Packaging

Ensure certificate of conformity is attached

4x 8015-1210

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |                                                                                                                                                     |  |
|--------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |  | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |  | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |  |  |  |                                                                                                                                                     |  |
| Date :                                                       |  | Step #:                                                                                                                                                                            |  | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  | MRB (QSI042) Approval<br><br><br>Completed By<br><br><br>Lead hand / Supervisor<br>Approval Verification<br><br><br>QC / QA Coordinator<br>Approval |  |
| Description Work Order Deviation                             |  |                                                                                                                                                                                    |  | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  |                                                                                                                                                     |  |
|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |                                                                                                                                                     |  |

|                   |                          |        |                          |                       |                          |               |                          |              |                          |          |                          |                    |                          |                  |                          |     |                          |            |                          |                  |                          |               |                          |                    |                          |          |                          |              |                          |          |                          |          |                          |                 |                          |                  |                          |         |                          |                     |                          |                     |                          |                       |                          |          |                          |                 |                          |         |                          |                       |                          |        |                          |                        |                          |       |                          |          |                          |            |                          |                    |                          |               |                          |                  |                          |        |                          |           |                          |                      |                          |                                   |                          |               |                          |             |                          |               |                          |                                 |                          |             |                          |                  |                          |               |                          |       |                          |      |                          |                    |                          |                 |                          |         |                          |            |                          |              |                          |                       |                          |                  |                          |                    |                          |                      |                          |                |                          |                   |                          |            |                          |         |                          |        |                          |         |                          |                  |                          |
|-------------------|--------------------------|--------|--------------------------|-----------------------|--------------------------|---------------|--------------------------|--------------|--------------------------|----------|--------------------------|--------------------|--------------------------|------------------|--------------------------|-----|--------------------------|------------|--------------------------|------------------|--------------------------|---------------|--------------------------|--------------------|--------------------------|----------|--------------------------|--------------|--------------------------|----------|--------------------------|----------|--------------------------|-----------------|--------------------------|------------------|--------------------------|---------|--------------------------|---------------------|--------------------------|---------------------|--------------------------|-----------------------|--------------------------|----------|--------------------------|-----------------|--------------------------|---------|--------------------------|-----------------------|--------------------------|--------|--------------------------|------------------------|--------------------------|-------|--------------------------|----------|--------------------------|------------|--------------------------|--------------------|--------------------------|---------------|--------------------------|------------------|--------------------------|--------|--------------------------|-----------|--------------------------|----------------------|--------------------------|-----------------------------------|--------------------------|---------------|--------------------------|-------------|--------------------------|---------------|--------------------------|---------------------------------|--------------------------|-------------|--------------------------|------------------|--------------------------|---------------|--------------------------|-------|--------------------------|------|--------------------------|--------------------|--------------------------|-----------------|--------------------------|---------|--------------------------|------------|--------------------------|--------------|--------------------------|-----------------------|--------------------------|------------------|--------------------------|--------------------|--------------------------|----------------------|--------------------------|----------------|--------------------------|-------------------|--------------------------|------------|--------------------------|---------|--------------------------|--------|--------------------------|---------|--------------------------|------------------|--------------------------|
| <b>Root Cause</b> |                          |        |                          | <b>FAULT CATEGORY</b> |                          |               |                          |              |                          |          |                          |                    |                          |                  |                          |     |                          |            |                          |                  |                          |               |                          |                    |                          |          |                          |              |                          |          |                          |          |                          |                 |                          |                  |                          |         |                          |                     |                          |                     |                          |                       |                          |          |                          |                 |                          |         |                          |                       |                          |        |                          |                        |                          |       |                          |          |                          |            |                          |                    |                          |               |                          |                  |                          |        |                          |           |                          |                      |                          |                                   |                          |               |                          |             |                          |               |                          |                                 |                          |             |                          |                  |                          |               |                          |       |                          |      |                          |                    |                          |                 |                          |         |                          |            |                          |              |                          |                       |                          |                  |                          |                    |                          |                      |                          |                |                          |                   |                          |            |                          |         |                          |        |                          |         |                          |                  |                          |
| Environment       | <input type="checkbox"/> | Design | <input type="checkbox"/> | Doc/Data              | <input type="checkbox"/> | Equip/Tooling | <input type="checkbox"/> | Handling/Pre | <input type="checkbox"/> | Material | <input type="checkbox"/> | Internal Transport | <input type="checkbox"/> | Tribal Knowledge | <input type="checkbox"/> | LOA | <input type="checkbox"/> | Substation | <input type="checkbox"/> | Past Expiry Date | <input type="checkbox"/> | Misidentified | <input type="checkbox"/> | No Re-verification | <input type="checkbox"/> | Operator | <input type="checkbox"/> | Offset/Setup | <input type="checkbox"/> | Supplier | <input type="checkbox"/> | Training | <input type="checkbox"/> | Use for Testing | <input type="checkbox"/> | Poor Information | <input type="checkbox"/> | Rushing | <input type="checkbox"/> | Product Improvement | <input type="checkbox"/> | Process Improvement | <input type="checkbox"/> | Manufacturing Process | <input type="checkbox"/> | Past Due | <input type="checkbox"/> | Pressure/Forced | <input type="checkbox"/> | Bending | <input type="checkbox"/> | Centre Not Concentric | <input type="checkbox"/> | Cracks | <input type="checkbox"/> | Crimp/Kink/Ripple/Wave | <input type="checkbox"/> | Cuffs | <input type="checkbox"/> | Crushing | <input type="checkbox"/> | Heat Treat | <input type="checkbox"/> | Wave/Twist in Tube | <input type="checkbox"/> | Marks/Chatter | <input type="checkbox"/> | Temperature/Cure | <input type="checkbox"/> | Set-up | <input type="checkbox"/> | BOM/Route | <input type="checkbox"/> | Broken/Damage/Defect | <input type="checkbox"/> | Inspection Incomplete/Unqualified | <input type="checkbox"/> | Contamination | <input type="checkbox"/> | Countersink | <input type="checkbox"/> | Cut Too Short | <input type="checkbox"/> | Instructions Incomplete/Unclear | <input type="checkbox"/> | Drill Holes | <input type="checkbox"/> | Power Loss/Surge | <input type="checkbox"/> | Folio/Program | <input type="checkbox"/> | Grain | <input type="checkbox"/> | Weld | <input type="checkbox"/> | Wrong Stock Pulled | <input type="checkbox"/> | Out of Sequence | <input type="checkbox"/> | Off-set | <input type="checkbox"/> | Mislabeled | <input type="checkbox"/> | Fit/Function | <input type="checkbox"/> | Misaligned/off center | <input type="checkbox"/> | Positioned Wrong | <input type="checkbox"/> | Outside Dimensions | <input type="checkbox"/> | Over/Under tolerance | <input type="checkbox"/> | Part Incorrect | <input type="checkbox"/> | Part Lost/Missing | <input type="checkbox"/> | Part Moved | <input type="checkbox"/> | Drawing | <input type="checkbox"/> | Finish | <input type="checkbox"/> | Misread | <input type="checkbox"/> | Turning Sequence | <input type="checkbox"/> |
| OTHER : _____     |                          |        |                          |                       |                          |               |                          |              |                          |          |                          |                    |                          |                  |                          |     |                          |            |                          |                  |                          |               |                          |                    |                          |          |                          |              |                          |          |                          |          |                          |                 |                          |                  |                          |         |                          |                     |                          |                     |                          |                       |                          |          |                          |                 |                          |         |                          |                       |                          |        |                          |                        |                          |       |                          |          |                          |            |                          |                    |                          |               |                          |                  |                          |        |                          |           |                          |                      |                          |                                   |                          |               |                          |             |                          |               |                          |                                 |                          |             |                          |                  |                          |               |                          |       |                          |      |                          |                    |                          |                 |                          |         |                          |            |                          |              |                          |                       |                          |                  |                          |                    |                          |                      |                          |                |                          |                   |                          |            |                          |         |                          |        |                          |         |                          |                  |                          |

# Work Order ID 138814

November 12, 2015 1:42:53 PM

**\*138814\***

Page 3

Item ID: D212-725-1-110

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Stop

**\*NS2\***

Item Name: Engine Mount Deck Fitting

Start Date: 11/12/2015 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 12/23/2015 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

DAS  
38  
9-89

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160

**\*160\***

QC

Quality Control

QC3- Inspect Part Finish

QC7

Memo

0.00

0.00

(4)

DAS  
38  
9-89

DEC 10 2015

170

**\*170\***

Packaging

Packaging

Identify as per dwg & Stock Location: 5-513

Memo

0.00

0.00

4 DEC 15 2015

DAS  
6  
9-89

180

**\*180\***

QC

Quality Control

QC21- Final Inspection - Work Order Release

Memo

0.00

0.00

MCS

DEC 15 2015

MCS

DEC 15 2015

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                      |  | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | Step #:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MRB (QSI042) Approval<br><br><br>Completed By<br><br><br>Lead hand / Supervisor<br>Approval Verification<br><br><br>QC / QA Coordinator<br>Approval |                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| <b>Root Cause</b><br>Environment <input type="checkbox"/><br>Design <input type="checkbox"/><br>Doc/Data <input type="checkbox"/><br>Equip/Tooling <input type="checkbox"/><br>Handling/Pre <input type="checkbox"/><br>Material <input type="checkbox"/><br>Internal Transport <input type="checkbox"/><br>Tribal Knowledge <input type="checkbox"/><br>LOA <input type="checkbox"/><br>Substation <input type="checkbox"/><br>Past Expiry Date <input type="checkbox"/><br>Misidentified <input type="checkbox"/> |  | <input type="checkbox"/> No Re-verification<br><input type="checkbox"/> Operator<br><input type="checkbox"/> Offset/Setup<br><input type="checkbox"/> Supplier<br><input type="checkbox"/> Training<br><input type="checkbox"/> Use for Testing<br><input type="checkbox"/> Poor Information<br><input type="checkbox"/> Rushing<br><input type="checkbox"/> Product Improvement<br><input type="checkbox"/> Process Improvement<br><input type="checkbox"/> Manufacturing Process<br><input type="checkbox"/> Past Due |  | <b>FAULT CATEGORY</b><br><input type="checkbox"/> Pressure/Forced<br><input type="checkbox"/> Bending<br><input type="checkbox"/> Centre Not Concentric<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crimp/Kink/Ripple/Wave<br><input type="checkbox"/> Cuffs<br><input type="checkbox"/> Crushing<br><input type="checkbox"/> Heat Treat<br><input type="checkbox"/> Wave/Twist in Tube<br><input type="checkbox"/> Marks/Chatter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | <input type="checkbox"/> Temperature/Cure<br><input type="checkbox"/> Set-up<br><input type="checkbox"/> BOM/Route<br><input type="checkbox"/> Broken/Damage/Defect<br><input type="checkbox"/> Inspection Incomplete/Unqualified<br><input type="checkbox"/> Contamination<br><input type="checkbox"/> Countersink<br><input type="checkbox"/> Cut Too Short<br><input type="checkbox"/> Instructions Incomplete/Unclear<br><input type="checkbox"/> Drill Holes |                                                                                                                                                     | <input type="checkbox"/> Power Loss/Surge<br><input type="checkbox"/> Folio/Program<br><input type="checkbox"/> Grain<br><input type="checkbox"/> Weld<br><input type="checkbox"/> Wrong Stock Pulled<br><input type="checkbox"/> Out of Sequence<br><input type="checkbox"/> Off-set<br><input type="checkbox"/> Misabeled<br><input type="checkbox"/> Fit/Function<br><input type="checkbox"/> Misaligned/off center |  | <input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Outside Dimensions<br><input type="checkbox"/> Over/Under tolerance<br><input type="checkbox"/> Part Incorrect<br><input type="checkbox"/> Part Lost/Missing<br><input type="checkbox"/> Part Moved<br><input type="checkbox"/> Drawing<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Misread<br><input type="checkbox"/> Turning Sequence |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | OTHER :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |

# Picklist Print

November 12, 2015 1:42:58 PM

Work Order ID: 138814

**\*138814\***

Parent Item: D212-725-1-110

**\*D212-725-1-110\***

Parent Item Name: Engine Mount Deck Fitting

Start Date: 11/12/2015

Required Date: 12/23/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A New Issue 06-12-19 JLM  
IPP Rev:B Added Cad Plating 07-07-23 Verified By:EC

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M4140N-<br>B1.500X1.5000        |                        | Purchased     | No          |                     |                  |                 | f                  | 11.0160        |             | 0.315789     |               |                |        |

**\*M4140N-B1 500X1 5000\***

4140 Steel Bar 1.50 x 1.50

**\*\***

11/15-11/25

Location

Loc Qty

Loc Code

MAT034

11.016

m127137

11.016

1.15

|                                                  |  |                                    |
|--------------------------------------------------|--|------------------------------------|
| <b>DART AEROSPACE LTD</b>                        |  | <b>Work Order:</b> 138814          |
| <b>Description:</b> Small Engine Mount <b>RH</b> |  | <b>Part Number:</b> D212-725-1-110 |
| <b>Inspection Dwg:</b> D212-725-1 <b>Rev:</b> B  |  | <b>Page 1 of 1</b>                 |

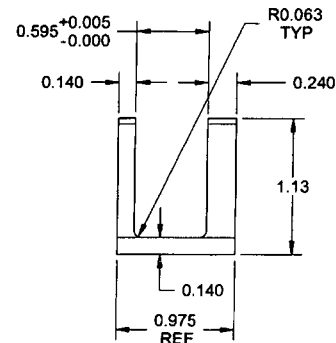
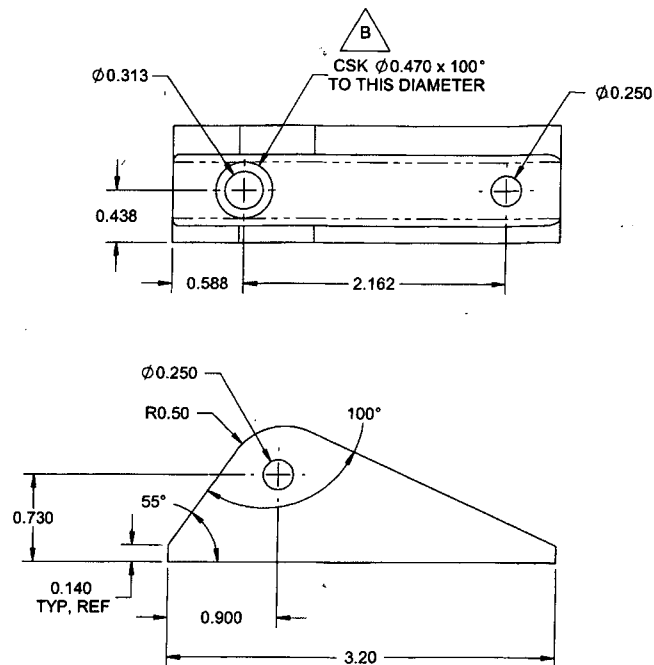
### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

| Drawing Dimension | Tolerance     | Actual Dimension | Accept | Reject | Method of Inspection | Comments    |
|-------------------|---------------|------------------|--------|--------|----------------------|-------------|
| 0.730             | +/-0.010      | 730              | ✓      |        | vern                 | Shop        |
| R0.50             | +/-0.030      | 500              | ✓      |        | rad G                | Shop        |
| Ø0.250            | +0.005/-0.001 | 250              | ✓      |        | g-pin+cal            | Shop+JTC-01 |
| 3.20              | +/-0.030      | 3.202            | ✓      |        | vern                 | JTC-01      |
| 0.900             | +/-0.010      | 901              | ✓      |        | HG                   | 31006       |
| 0.14              | +/-0.030      | 139              | ✓      |        | mic 0-1              | JTC-02      |
| 55°               | +/-0.5°       | 55°              | ✓      |        | protractor           | Shop        |
| 100°              | +/-0.5°       | 100°             | ✓      |        | "                    | Shop        |
| 0.240             | +/-0.010      | 242              | ✓      |        | vern                 | JTC-01      |
| R0.063            | +/-0.010      | 063              | ✓      |        | rad G                | Shop        |
| 0.140             | +/-0.010      | 140              | ✓      |        | mic 01               | JTC-02      |
| 1.13              | +/-0.030      | 1.135            | ✓      |        | caliper              | JTC-01      |
| 0.140             | +/-0.010      | 142              | ✓      |        | "                    | "           |
| 0.975             | +/-0.010      | 975              | ✓      |        | mic 01               | JTC-02      |
| 595               | +0.005/-0     | 598              | ✓      |        | g-pin+cal            | Shop+JTC-01 |
| 0.313             | +0.006/-0.001 | 0.314            | ✓      |        | Caliper              | JCL-08      |
| 0.470X100°        | +/-0.010      | 0.475            | ✓      |        | "                    |             |
| 0.250             | +0.005/-0.001 | 0.251            | ✓      |        | "                    |             |
| 0.438             | +/-0.010      | 0.438            | ✓      |        | "                    |             |
| 0.588             | +/-0.010      | 0.588            | ✓      |        | "                    |             |
| 2.162             | +/-0.010      | 2.162            | ✓      |        | "                    |             |
|                   |               |                  |        |        |                      |             |
|                   |               |                  |        |        |                      |             |

|                                                           |  |                                                             |  |                                                    |  |
|-----------------------------------------------------------|--|-------------------------------------------------------------|--|----------------------------------------------------|--|
| <b>Measured by:</b> SK <b>45</b><br><b>Date:</b> 15-11-30 |  | <b>Audited by:</b> D.A. <b>DAS</b><br><b>Date:</b> 15/12/03 |  | <b>Prototype Approval:</b> N/A<br><b>Date:</b> N/A |  |
| <b>Rev</b> A <b>Date</b> 07.09.06 <b>Change</b> New Issue |  | <b>Revised by</b> KJ/JLM                                    |  | <b>Approved</b>                                    |  |





# **D212-725-1-110 SMALL ENGINE MOUNT, RH**

## **NOTES:**

- 1) MATERIAL: AISI 4140 STEEL BAR  
PER MIL-S-5626 OR AMS 6382/6349/6529  
REF DART SPEC. M4140N-B  
OR AISI 4130 STEEL BAR  
PER MIL-S-6758 OR AMS 6345/6348/6370/6528  
REF DART SPEC. M4130N-B  
HEAT TREAT TO MIN. ULTIMATE TENSILE STRENGTH = 125 ksi
- 2) FINISH: CADMIUM PLATE PER AMS-QQ-P-416B, CLASS I, TYPE II
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.30 lbs

20151112  
SLT 138814

|            |          |                                                                                                                                                                                                                                                                                |              |
|------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| DESIGN     | JL       | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                       |              |
| DRAWN      | RF       |                                                                                                                                                                                                                                                                                |              |
| CHECKED    |          | DRAWING NO.                                                                                                                                                                                                                                                                    | REV. B       |
| MFG. APPR. |          | D4231                                                                                                                                                                                                                                                                          | SHEET 2 OF 3 |
| APPROVED   |          | TITLE                                                                                                                                                                                                                                                                          | SCALE        |
| DE APPR.   |          | ENGINE MOUNT                                                                                                                                                                                                                                                                   | NTS          |
| DATE       | 12.05.29 | COPYRIGHT © 2011 BY DART AEROSPACE LTD<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS<br>NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT<br>WRITTEN PERMISSION FROM DART AEROSPACE LTD. |              |

RELEASED  
2013-03-21  
MP



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO30643**

Purchase Order Date 12/3/2015

PO Print Date 12/3/2015

Page Number 1 of 2

**Order From :**

GROUP ALTECH  
2455 HALPERN

ST LAURENT, MONTREAL H4S 1N9

VC-ALT01

**Ship To :** DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**FAXED**

**Contact Name**

**Vendor Phone** 514-355-3666

**Ship To Contact**

**Ship To Phone**

**Ship Via:** FedEx PI ppd

**Ship Acct:**

**Buyer**

Chantal Lavoie

**Customer POID**

**Customer Tax #** 10127-2607

**Terms**

Net 30

**Currency**

CAD

**FOB**

Destination-Collect

| Line Nbr | Reference<br>Vendor Part Number | Description/<br>Mfg ID         | Req Date/<br>Taxable | CD | Req Qty/<br>Unit of<br>Measure | PO Unit Price | Extended<br>Price |
|----------|---------------------------------|--------------------------------|----------------------|----|--------------------------------|---------------|-------------------|
|          | Line Comments                   |                                | Promise Date         |    |                                |               |                   |
|          | Delivery Comments               |                                |                      |    |                                |               |                   |
| 1        | 138814                          | D212-725-1-110 ENGINE<br>MOUNT | 12/11/2015           |    | 4.00                           | \$36.88       | \$147.50          |
|          |                                 |                                | Yes<br>12/11/2015    |    |                                |               |                   |

Cad Plating is to be done per QQ-P-416F Class I Type II.

PLEASE NOTE: HYDROGEN ENDBRITALEMENT IS INCLUDED IN PRICING PER UNIT

**Line Total: \$147.50**

|   |        |                                |                   |  |      |         |          |
|---|--------|--------------------------------|-------------------|--|------|---------|----------|
| 2 | 138813 | D212-725-1-109 ENGINE<br>MOUNT | 12/11/2015        |  | 4.00 | \$36.88 | \$147.50 |
|   |        |                                | Yes<br>12/11/2015 |  |      |         |          |

Cad Plating is to be done per QQ-P-416F Class I Type II.

PLEASE NOTE: HYDROGEN ENDBRITALEMENT IS INCLUDED IN PRICING PER UNIT

**Line Total: \$147.50**

**Note:**

12/3/2015



2455, Halpern, Saint-Laurent, QUÉBEC, H4S 1N9  
Tel.:(514)335-3666 Fax.:(514)335-3868  
Internet : www.groupaltech.com

**Bon de livraison / Packing Slip  
et / and  
Certificat de conformité / Certificate of Compliance**

Bon-Livraison / Pk.Slip # : 114462-1 09/12/2015  
Bon-Commande. / W.Order # : 114462  
Client P.O. # : 30643  
Transport :

Envoyé à / Ship to

**DART AEROSPACE LTD**  
1270 ABERDEEN STREET  
HAWKESBURY  
ONTARIO, CANADA K6A 1K7

Commandé par / Order by

**DART AEROSPACE LTD (1427)**  
1270 ABERDEEN STREET  
HAWKESBURY  
ONTARIO, CANADA K6A 1K7

| # | No. Job<br>No. Réf | NoSerie / Part Number<br>Nom-Produit / Product | Traitement<br>Process                     | Poids<br>Weight | Qté<br>Qty | Envoyé<br>Sent | A venir<br>BO |
|---|--------------------|------------------------------------------------|-------------------------------------------|-----------------|------------|----------------|---------------|
| 1 | UNIT<br>138814     | D212-725-1-110<br>Rev.<br>ENGINE MOUNT         | CADMIUM YELLOW PER QQ-P-416F<br>TY:2 CL:1 | 0.00            | 4          | 4              | 0             |
| 2 | UNIT<br>138814     | D212-725-1-110<br>Rev.<br>ENGINE MOUNT         | HYDROGEN ENBRITAMENT<br>RELIEF (BAKE)     | 0.00            | 4          | 4              | 0             |
| 3 | UNIT<br>138813     | D212-725-1-109<br>Rev.<br>ENGINE MOUNT         | CADMIUM YELLOW PER QQ-P-416F<br>TY:2 CL:1 | 0.00            | 4          | 4              | 0             |
| 4 | UNIT<br>138813     | D212-725-1-109<br>Rev.<br>ENGINE MOUNT         | HYDROGEN ENBRITAMENT<br>RELIEF (BAKE)     | 0.00            | 4          | 4              | 0             |

Notes Additionnelles / Additional Notes

Epaisseur réelle  
Actual Thickness

Inspecteur Qualité  
Quality Inspector

PP

Réçu par  
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.  
Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.  
Our financial and legal responsibility will not be higher than the amount of invoice.